

Rec PCT/PTO 10 SEP 2004

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/02862

A. CLASSIFICATION OF SUBJECT MATTER Int.Cl ⁷ C07D231/56														
According to International Patent Classification (IPC) or to both national classification and IPC														
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) Int.Cl ⁷ C07D231/56														
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched														
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) CAPLUS (STN)														
C. DOCUMENTS CONSIDERED TO BE RELEVANT														
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.												
P, X	KOBAYASHI, Shu et al., "Asymmetric Intramolecular [3+2] Cycloaddition Reactions of Acylhydrazones/Olefins Using a Chiral Zirconium Catalyst", Journal of the American Chemical Society (2002), 124(46), pages 13678 to 13679	1-5												
A	FOUCHET, B. et al., "(3+2) Intramolecular cationic cycloadditions and 1,3-dipolar cycloadditions of phenylhydrazones", Tetrahedron Letters (1981), 22(14), pp. 1333-6	1-5												
A	KOBAYASHI, Shu et al., "Chiral Catalyst Optimization Using Both Solid-Phase and Liquid-Phase Methods in Asymmetric Aza Diels-Alder Reactions", Organic Letters (2000), 2(9), pages 1225 to 1227	1-5												
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.														
<table border="0"><tr><td>* Special categories of cited documents:</td><td>"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td></tr><tr><td>"A" document defining the general state of the art which is not considered to be of particular relevance</td><td>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td></tr><tr><td>"E" earlier document but published on or after the international filing date</td><td>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td></tr><tr><td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td><td>"&" document member of the same patent family</td></tr><tr><td>"O" document referring to an oral disclosure, use, exhibition or other means</td><td></td></tr><tr><td>"P" document published prior to the international filing date but later than the priority date claimed</td><td></td></tr></table>			* Special categories of cited documents:	"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"E" earlier document but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family	"O" document referring to an oral disclosure, use, exhibition or other means		"P" document published prior to the international filing date but later than the priority date claimed	
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"E" earlier document but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art													
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family													
"O" document referring to an oral disclosure, use, exhibition or other means														
"P" document published prior to the international filing date but later than the priority date claimed														
Date of the actual completion of the international search 10 April, 2003 (10.04.03)		Date of mailing of the international search report 30 April, 2003 (30.04.03)												
Name and mailing address of the ISA/ Japanese Patent Office		Authorized officer												
Facsimile No.		Telephone No.												

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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A	SAKANE, Soichi et al., "Asymmetric cyclization of unsaturated aldehydes catalyzed by a chiral", Tetrahedron (1986), 42(8), pp. 2203-9	1-5